

**E**merging market investor sentiment deteriorated sharply during the third quarter, and the external financing environment for emerging markets was singularly unsupportive. At the same time, investor apprehension over policy continuity in Brazil and other Latin American countries became accentuated with the approach of elections. Both mature and emerging markets experienced a sharp tiering by credit quality, with highly leveraged firms and countries with large borrowing requirements at the focal point of investor concern. Signs of broad-based contagion in emerging debt markets were limited, notwithstanding an increase in volatility. In the primary markets, unsecured access was effectively closed to non-investment grade issuers in Latin America, while Asian and Eastern European issuers experienced relatively open access. However, cumulative gross issuance of bonds, loans, and equities in the nine months through September has fallen well below previous years. So long as the external environment remains turbulent and uncertainty over policy continuity in key emerging markets persists, risks for emerging markets will remain elevated. Mitigating these risks are the limited leverage in emerging credit markets and the likely continuation of investor discrimination.

As highlighted in the previous chapter, the external financing environment for emerging markets was singularly unsupportive.

- In the mature credit markets, heightened risk aversion (Box 3.1) pushed government bond yields to historic lows and yield spread ratios on corporate bonds to near record levels. These yield spreads were symptomatic of sharp tiering by credit quality and reflect heightened investor concerns over the earnings prospects of highly leveraged firms. Wide corporate yield spreads also made it difficult for emerging markets to

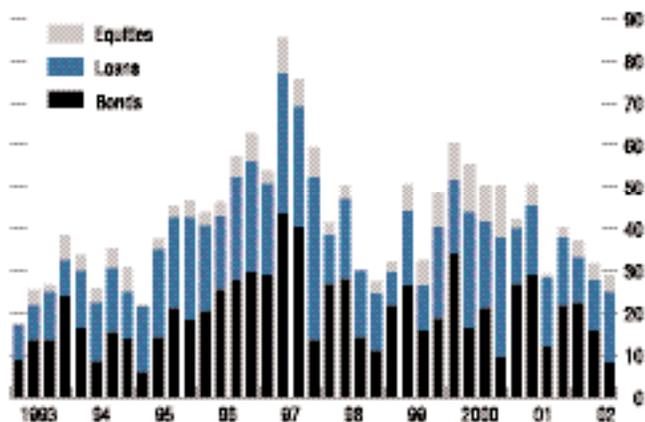
attract crossover investors from mature credit markets.

- Continued mature equity market weakness and volatility were detrimental to emerging market financing, including foreign direct investment, which has in the past been correlated with equity market performance.
- As outlined in Chapter II, bank financial losses from lending in mature markets and reputational losses and potential legal liabilities from questionable business practices inhibited lending. In addition, the unexpected nature of the losses incurred as a result of the deposit freeze and asymmetric pessimization of bank deposits in Argentina led banks to reassess the risks of operations in emerging markets and to retrench further.
- Liquidity and trading volume in the secondary market for emerging market bonds declined. Financial consolidation has reduced the number of emerging market debt dealers. And those remaining appear less willing than in the past to accommodate sellers by taking securities on their balance sheets. Limited liquidity contributed to price gapping and prevented large dedicated investors from reducing their exposures.

### Emerging Market Financing Overview

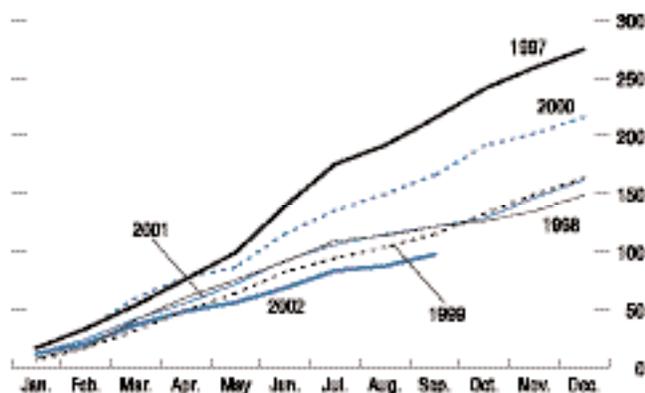
Against this backdrop, the cumulative gross issuance of bonds, loans, and equities in the first nine months of the year is lagging issuance levels of the previous five years by a significant margin and is highly concentrated in investment grade credits. In the third quarter, gross funding of emerging markets on international capital markets declined to \$28.8 billion from \$31.8 billion in the previous quarter (see Table 3.1 and Figure 3.1). Bond issuance plummeted,

**Figure 3.1. Emerging Market Financing**  
(In billions of U.S. dollars)



Source: Capital Data.

**Figure 3.2. Cumulative Gross Annual Issuance of Bonds, Loans, and Equity**  
(In billions of U.S. dollars)



Source: Capital Data.

with quarterly issuance down 40 percent from the second quarter to levels witnessed in the aftermath of the Asian crisis. The drop in bond issuance was partially offset by syndicated loan commitments. Equity placements remained modest, with Asian issuers accounting for the bulk of new offerings.

In the primary markets, cumulative issuance of bonds during the first three quarters is down over 30 percent compared to the same periods in both 2000 and 2001 (Figure 3.2). Issuance in the third quarter totaled a mere \$8.1 billion, the lowest quarterly level since the first quarter of 1995, a 60 percent decline from the average during the same period over the previous five years. Latin American issuance fell most sharply, with mainstream non-investment grade issuers facing difficult market access. The decline followed relatively healthy activity in the primary markets in the first half of 2002, dominated by Eastern European and Asian investment grade borrowers, while the Argentine default continued to impede the receptiveness of euro- and yen-based investors to all but investment grade issuance.

Equity issuance remained muted in the third quarter, with placements totaling \$3.7 billion, in line with levels through 2001 and the first half of 2002. The abrupt decline in placements from 2000 echoes developments in the mature markets, and contrasts markedly with the jumbo issues by Asian corporates in the technology, media, and telecommunications (TMT) sector during 2000.

Syndicated lending to the emerging markets rose modestly in the third quarter of this year, with quarterly issuance—primarily to investment grade corporates—totaling \$16.8 billion compared with quarterly issuance of around \$11 billion in both the first and second quarters. Nevertheless, the syndicated loan market has witnessed a considerable decline in volume in 2002 to levels last seen in 1994–95 and in the aftermath of the 1998 Asian crisis. This downturn in primary market syndications reflects a lack of demand by corporates for credit amid the slowdown in global economic growth and

**Table 3.1. Emerging Market Financing Overview**

			2000				2001				2002					Year to date <sup>1</sup>	
	2000	2001	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Jul.	Aug.		Sep.
	<i>(in billions of U.S. dollars)</i>																
<b>Issuance</b>	<b>216.4</b>	<b>162.1</b>	<b>60.4</b>	<b>55.4</b>	<b>50.3</b>	<b>50.3</b>	<b>42.2</b>	<b>50.5</b>	<b>29.2</b>	<b>40.2</b>	<b>37.1</b>	<b>31.8</b>	<b>28.8</b>	<b>14.9</b>	<b>3.9</b>	<b>10.0</b>	<b>98.5</b>
Bonds	80.5	89.0	33.8	16.1	21.1	9.4	26.8	28.8	11.7	21.7	22.2	15.7	8.1	2.5	1.0	4.5	46.9
Equities	41.8	11.2	8.9	11.6	8.8	12.4	2.3	5.3	1.0	2.6	4.1	4.3	3.8	3.7	0.0	0.1	12.2
Loans	94.2	61.9	17.6	27.7	20.4	28.5	13.1	16.4	16.4	15.9	10.8	11.9	16.8	8.7	2.8	5.3	39.5
<b>Issuance by Region</b>	<b>216.4</b>	<b>162.1</b>	<b>60.4</b>	<b>55.4</b>	<b>50.3</b>	<b>50.3</b>	<b>42.2</b>	<b>50.5</b>	<b>29.2</b>	<b>40.2</b>	<b>37.1</b>	<b>31.8</b>	<b>28.8</b>	<b>14.9</b>	<b>3.9</b>	<b>10.0</b>	<b>98.5</b>
Asia	85.9	67.5	19.5	26.1	18.3	22.0	19.6	22.8	7.5	17.6	13.3	11.5	13.1	7.0	1.3	4.8	38.5
Western Hemisphere	69.1	53.9	23.7	13.9	18.8	12.7	15.2	15.4	11.4	11.9	11.9	8.0	5.2	1.6	0.2	3.4	25.1
Europe, Middle East, Africa	61.4	40.8	17.1	15.4	13.2	15.6	7.4	12.4	10.4	10.7	11.8	12.4	10.5	6.3	2.4	1.8	34.9
<b>Secondary Markets</b>																	
<b>Bonds:</b>																	
EMBI+ (spread in basis points) <sup>2</sup>	756	731	674	712	677	756	784	766	1,005	731	598	799	903	991	886	1,041	844
Merrill Lynch High Yield (spread in basis points)	871	734	584	615	664	871	757	736	915	734	623	809	890	874	863	966	930
Salomon Broad Inv Grade (spread in basis points)	89	78	81	87	83	95	89	80	77	78	69	73	75	84	76	81	81
U.S. 10 yr. Treasury Yield (yield in %)	5.12	5.07	6.03	6.03	5.80	5.12	4.93	4.93	4.60	5.07	5.42	4.86	3.98	4.51	4.14	3.63	4.07
	<i>(in percent)</i>																
<b>Equity:</b>																	
DOW	-6.2	-7.1	-5.0	-4.3	1.9	1.3	-8.4	6.3	-17.5	15.7	3.8	-11.2	-9.3	-5.5	-0.8	-12.4	-14.5
NASDAQ	-39.3	-21.1	12.4	-13.3	-7.4	-32.7	-25.5	17.4	-30.5	29.9	-5.4	-20.7	-12.5	-9.2	-1.0	-10.9	-28.4
MSCI Emerging Market Free	-31.8	-4.9	2.0	-10.8	-13.4	-13.5	-6.2	3.1	-23.4	28.4	10.7	-9.0	-6.9	-7.9	1.4	-11.0	-9.4
Asia	-42.5	4.2	4.0	-14.0	-22.3	-17.3	-0.1	-1.6	-22.1	36.1	14.9	-6.3	-6.2	-4.3	-1.2	-12.2	-4.9
Latin America	-18.4	-4.3	3.2	-8.1	-6.0	-8.5	-3.5	7.1	-24.7	23.0	7.1	-22.0	-8.7	-15.6	9.1	-18.3	-27.7
Europe/Middle East	-23.4	-17.7	3.0	-9.7	-3.9	-14.3	-22.0	4.5	-26.1	36.8	0.2	-11.0	-1.5	-4.1	2.3	-4.6	-8.7

Sources: Bloomberg L.P.; Capital Data Ltd.; Merrill Lynch; Salomon Smith Barney; and IMF staff estimates.

<sup>1</sup>Issuance data are as of October 8, 2002 close-of-business London and Secondary markets data are as of November 4, 2002 cob New York.

<sup>2</sup>On April 14, 2000 the EMBI+ was adjusted for the London Club agreement for Russia. This resulted in a one-off (131 basis points) decline in average measured spreads.

heightened uncertainty about recovery prospects. On the supply side, banks have further tightened lending conditions, having sustained sizable losses on their exposures following several high profile bankruptcies in the United States and Europe in late 2001 and 2002. Losses on banks' Argentine exposures and uncertainty over Brazil's outlook have also weighed on risk appetite, spurring a retrenchment by banks, especially in the Southern Cone. This sharp fall in activity follows the tremendous surge in syndicated lending in late 1999 and 2000, marked by the advent of jumbo loans for the emerging markets, in large part driven by financing for mergers and acquisitions in the

TMT sector and by widespread improvement in credit quality.

## Emerging Bond Markets

Performance and yield spread developments in the emerging bond market during the third quarter continued to reflect investor discrimination across regions and the credit spectrum, with favor bestowed on borrowers with relatively low external financing requirements, strong fiscal positions, and good prospects for policy continuity. Nevertheless, the emerging bond market was not spared the retrenchment of risk taking and pessimism that characterized global financial

**Box. 3.1. Risk Retrenchment and Risk Indicators**

There are a number of widely used measures developed by market practitioners to capture episodes of financial market strain. All of these measures suggest that financial market strain has begun to ease recently, from high levels earlier in 2002. These indices have also been interpreted as indicators of risk appetite, implying that changes in risk from changes in risk aversion have been successfully disentangled.

***Changes in Risk Perception Versus Increased Risk Aversion***

The recent retrenchment of risk taking could reflect investor perceptions that a further deterioration in the financial environment is more likely—that is, higher perceived risk—or a reduced willingness by investors to bear a given level of risk (heightened investor risk aversion), or some combination of the two. Given that the two alternatives have different policy implications, it is important to be able to distinguish them. In particular, a variety of policies—ranging from stimulative macroeconomic policies, to improved disclosure and transparency—can reduce actual and perceived risk; it is not clear what types of policies (if any) can affect investor tastes.

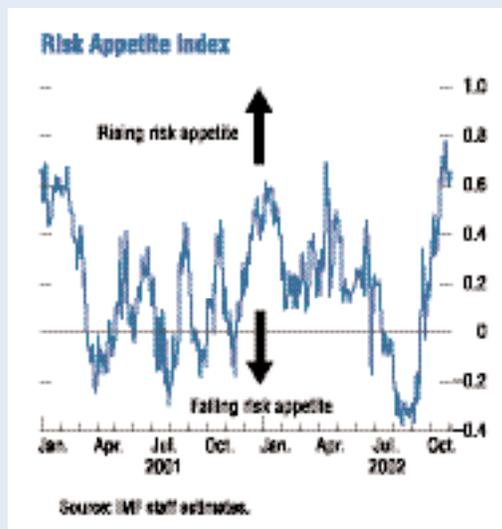
Unfortunately, disentangling risk and risk aversion is difficult in practice: both increased risk and increased risk aversion cause risk premiums to rise. A generalized present value framework with a risky and a risk-free asset demonstrates this. Under this framework, the price of a risk-free asset that has a real rate of return  $r$  is:

$$P_{safe} = 1/r.$$

When the risky asset pays a dividend,  $d$ , that has an expected future value of \$1 and variance (or risk)  $\sigma^2$ , and is held by investors with risk aversion  $\gamma > 0$ , its price is:

$$P = 1/r - 2\gamma\sigma^2/r.$$

The risk premium,  $2\gamma\sigma^2/r$ , reflects both risk and risk aversion, so an increase in risk ( $\sigma^2$ ) has the same effect on risky asset prices as an increase in risk aversion ( $\gamma$ ): both cause the

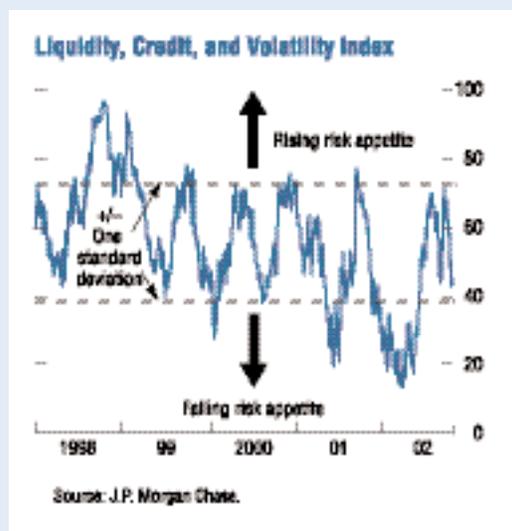


price of the risky asset to decline and the risk premium to increase. This illustrates the difficulty of distinguishing the two effects, including in the current environment. Nevertheless, the substantial increase in market volatility (as noted in the text) suggests that increased risk perceptions are at least partly at work.

***Risk Indicators***

Besides the difficulties in distinguishing between risk and risk aversion, there are further issues with risk indicators. First, in the past, these indexes have sometimes taken on negative values, which imply that investors are “risk-loving.” The notion of “risk loving” investors is difficult to square with basic microeconomics and simple observation. For example, if investors “loved risk,” credit spreads would be negative. Second, the increase in implied (forward-looking) volatility in a variety of markets during the latest period of financial strain suggests that increased risk perceptions rather than risk aversion may be at work.

A further difficulty with the interpretation arises when comparing these indices on an absolute rather than relative basis. By design, these indices rely on a selected number of financial market variables and thus provide limited insights into overall market developments. The



conclusion that a period of financial market strain experienced, for instance in September 2002, is more or less severe than earlier periods of strain, such as the 1998 Long-Term Capital Management (LTCM) crisis, is limited in its meaningfulness to the extent that the measure of strain is based on specific market variables subsumed in the various indices. Nevertheless, the indicators often subsumed—including credit spread movements, liquidity risk measurements, as well as financial market volatility—do provide an indication of financial market conditions.

#### *The Risk Appetite Index*

The Risk Appetite Index (RAI) index was developed by Kumar and Persaud in 2001 and builds on earlier analysis by Persaud (1996), with a focus on the foreign exchange markets (see the first Figure). In comparison with the other indicators reviewed here, the RAI suggests a much more pronounced increase in risk appetite late in the third quarter. The RAI is based on the observation that investors may share a common but changing appetite for risk. This formulation is motivated by the frequently observed clustering of crises and sunspot equilibria in financial markets.

The RAI exclusively relies on currency markets, where short-term movements are often

viewed as divorced from fundamentals. The authors suggest that when risk appetite changes and investors become more risk-seeking, high-yielding currencies are set to outperform. Similarly, when risk aversion rises, high-yielding currencies are set to underperform. In contrast, yields on currencies should be driven by unanticipated events, or shifts in risk in a world of constant risk aversion.

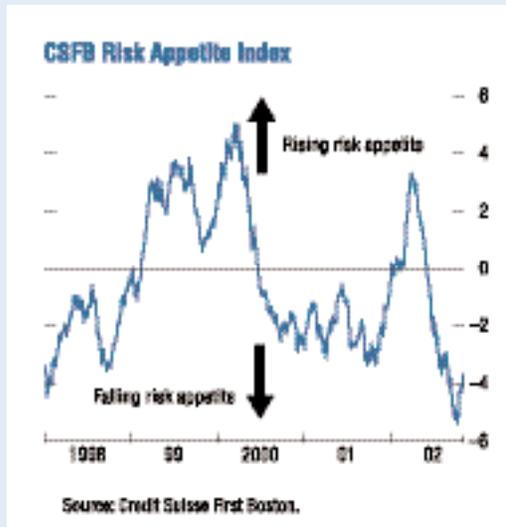
Within this framework, the “yield” or excess return of a currency is measured as the difference between the spot exchange rate and the one- (or three-) month forward rate one month (or three months) ago. Risk is calculated as the average volatility of past excess returns, implying that investor positioning reflects past return volatilities rather than expected volatilities embedded in option prices.

For a set of liquid currencies, the authors calculate the correlation between the excess returns of these currencies and past volatilities of excess returns in terms of their rank. For instance, the currency with the highest excess return is assigned rank one. If the excess return of this particular currency also exhibits, say, the second highest volatility, the currency is assigned rank two in terms of risk.

The RAI measures the correlation between the rank of excess returns and rank of risk at any point in time. An index value of positive one establishes that currency movements are fully correlated with their past volatilities; expressed differently, for all currencies the rank of their excess returns—rather than their percentage point return—matches the rank of their risk. Positive index measures thus are considered as an indication of rising risk appetite, while negative index measures—suggesting that excess returns move in the opposite direction of risk—are considered an indication of falling risk appetite.

#### *Liquidity, Credit, and Volatility Index*

The Liquidity, Credit, and Volatility Index (LCVI) released by J.P. Morgan Chase in October 2002 broadens the earlier Liquidity, Credit, and Premia Index (LCPI) by incorporat-

**Box. 3.1 (concluded)**

ing a measure of equity market volatility (see the second Figure). Both indices rely on a broad range of asset classes, besides the foreign exchange markets, to derive a measure of investors' willingness to bear risk. The LCVI encompasses seven indicators and attempts to capture three distinct types of risks—namely credit risk, liquidity risk, and volatility.

Liquidity risk is measured by two indicators:

- Since U.S. treasuries entail identical credit risk, differences in yield between on-the-run and off-the-run U.S. treasury bonds at various maturities are widely used to capture liquidity risk premiums.
- In addition, U.S. dollar swap spreads are used as a proxy for liquidity risk, as these spreads tend to widen during episodes of financial market strain.

Credit risk is measured by two indicators:

- U.S. corporate high-yield spread over U.S. treasuries for B2-rated corporates.
- The spread of the Emerging Bond Market Index over U.S. treasuries.

Financial market volatility measures include:

- The implied volatilities of six major currencies, as derived from option prices. Implied

volatilities are used, rather than historical volatilities, as the former are considered a more timely measure of risks priced into the market.

- An index similar to the RAI.
- The volatility index (VIX), developed by the Chicago Board of Options Exchange, which provides a measure of volatility of the U.S. equity market, and is derived from the level of implied volatility in index options.

The above indicators are normalized and averaged, using identical weights. The LCVI is less volatile than its component indices, thus suppressing some of the noise emanating from individual indicators while capturing periods of strain that affect a broad range of asset classes.

#### *The CSFB Risk Appetite Index*

Similar to the LCVI, the CSFB Risk Appetite Index (CSFB RAI) draws on a broad range of financial market variables, beyond the foreign exchange market (see third Figure). The CSFB RAI, in its current composition, was released by Credit Suisse First Boston in 2001, while building on an econometric model developed in 1998. The index is derived from econometric estimates, ultimately centered on the Sharpe ratio.

This ratio measures excess return per unit of risk and is derived by an asset's return in excess of the risk-free rate divided by the asset's standard deviation. Expressed differently, an asset's excess return needs to rise in order to compensate investors for rising return volatility. For a broad range of mature and emerging market assets, including equities and government and corporate bonds, the CSFB RAI regresses assets' excess return on a rolling measure of their standard deviation of their return. The derived coefficient from this regression is carried forward through time, thus giving rise to the index, with negative values indicating periods of financial market strain and positive values indicating periods of ease.

markets in the third quarter, as there was a general tendency for spreads to widen.

## Performance and Spread Developments

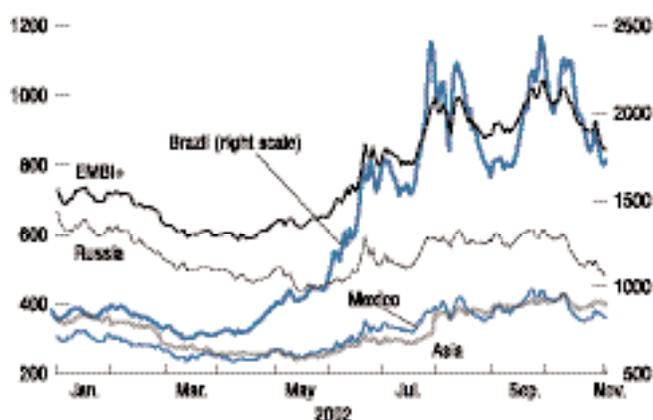
Notwithstanding the unsupportive external environment, and aggressive tiering by credit quality, the EMBI+ closed the third quarter with a relatively modest decline of 1.1 percent. While in part reflecting the yield tightening of U.S. treasuries, this performance compares favorably to a 9.3 percent decline for the Dow Jones Industrial Average, and a 3.1 percent decline for the Merrill Lynch high-yield index (Table 3.2). As in the second quarter, overall returns masked significant differences between Latin American emerging market bonds (which declined 4.5 percent in value), and non-Latin American bonds (which rose 3.6 percent), and between investment grade bonds (whose unweighted returns rose an average of 5.7 percent) and sub-investment grade bonds (which lost 1.5 percent), highlighting the trend of tiering by region and credit quality.

Yield spreads on the EMBI+ widened by 242 basis points during the quarter (Figure 3.3). Spread widening on Latin American bonds was particularly pronounced, reaching a cumulative 566 basis points in the first nine months of the year, largely reflecting developments in the Brazilian EMBI+ sub-index. Non-Latin American spreads also widened in the third quarter (by 133 basis points), but the cumulative widening for the year remained modest (34 basis points).

Volatility remained well below previous crisis episodes, owing to a reduction in leverage in the market, and investors continued to discriminate, as the emerging market bond investor base gradually shifted toward dedicated institutional investors with a longer-term investment horizon, while crossover and leveraged investors reduced their exposure to the market (Figure 3.4).

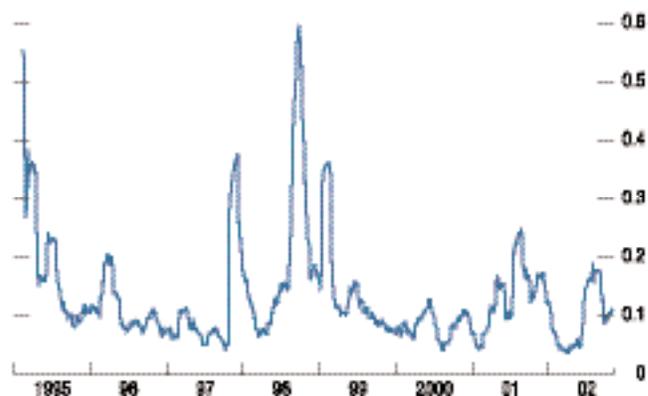
Signs of broad-based contagion were limited. The rolling 30-day average cross-correlation of individual country returns in the EMBI+ fell slightly by the end of the quarter, with correlations remaining well below historical peaks,

**Figure 3.3. Sovereign Spreads**  
(in basis points)



Source: J.P. Morgan Chase.

**Figure 3.4. EMBI+ Volatility**  
(30-day rolling)



Source: J.P. Morgan Chase.

**Table 3.2. EMBI+ Performance, 2002<sup>1</sup>**

	Returns (percent)		Spread Changes (basis points)		Spread Levels (basis points)			
	Q3	Year to date <sup>2</sup>	Q3	Year to date <sup>2</sup>	Dec. 31, 2001	June 28, 2002	Sep. 30, 2002	Nov. 4, 2002
EMBI+	-1.1	7.7	242	113	731	799	1,041	844
Latin	-4.5	-0.5	336	299	833	1,063	1,399	1,132
Non-Latin	3.6	20.8	133	-81	567	468	601	486
Argentina	15.2	-5.1	-521	1,725	4,372	7,074	6,553	6,097
Brazil	-15.7	-15.0	847	860	863	1,548	2,395	1,723
Bulgaria	0.9	6.9	12	-112	433	378	390	321
Colombia	-12.1	1.5	471	286	514	613	1,084	800
Ecuador	-23.1	-7.7	713	551	1,233	1,262	1,975	1,784
Egypt	3.7	n.a.	115	n.a.	n.a.	446	561	422
Malaysia	9.3	n.a.	8	n.a.	n.a.	162	170	175
Mexico	3.1	10.5	113	50	308	323	436	358
Morocco	0.2	2.8	47	8	518	498	545	526
Nigeria	-10.0	-0.6	2,285	1,163	1,426	1,647	3,932	2,589
Panama	2.5	7.3	88	48	409	466	554	457
Peru	-5.9	1.3	252	205	521	628	880	726
Philippines	2.7	13.5	102	18	466	429	531	484
Poland	4.2	11.2	101	18	195	202	303	213
Russia	3.3	31.3	105	-190	669	510	615	479
South Africa	6.0	n.a.	70	n.a.	n.a.	234	304	276
Turkey	4.3	10.0	129	118	707	895	1,024	825
Ukraine	5.4	18.9	13	-243	940	651	664	697
Venezuela	5.7	18.4	51	-88	1,130	1,111	1,162	1,042

Source: J.P. Morgan Chase.

<sup>1</sup>Constituents as of September 30, 2002.<sup>2</sup>Through November 4, 2002.

reflecting continued investor discrimination (Figure 3.5). With respect to individual cross-country correlations, pair-wise correlations with Brazil rose in the case of Colombia, while cross-correlations with Ecuador were particularly high in market declines. Cross-correlations of Brazil with Mexico and Russia, respectively, declined by the end of the quarter, reflecting Mexico's investment grade status and the rising influence of the U.S. market on developments in Mexico, while Russia continued to find favor among emerging market bond investors.

### Regional Developments

Within Latin America, Brazil continued to be the focal point of investor concern. The spread on the Brazilian EMBI+ sub-index rose 847 basis points during the quarter, to bring the cumulative increase during the year to 1,532 basis points. Performance in the Brazilian external debt market was largely driven by the dynamics

in the local market. Correlations between Brazil's external benchmark C-bond and the *real* rose sharply (Figure 3.6). At the same time, investors focused on the impact of the weakness of the *real*—which had declined by about 40 percent in the first nine months of 2002—on local debt dynamics, since Brazil's domestic government debt remained largely indexed to the dollar (40 percent) and short-term interest rates (41 percent). In the course of the year, the average maturity of local government bonded debt declined, and the share of debt maturing within one year rose to 40 percent. The heavily indexed structure of domestic government debt tended to amplify the impact of external shocks, as declines in the value of the *real* were reflected in rising debt service costs. The role of a country's debt structure in transmitting external shocks is considered in Box 3.2.

The volatility of the *real* rose sharply during the quarter (Figure 3.7). With access to new external borrowing quite limited, Brazilian cor-

porates were active buyers of dollars to meet foreign obligations falling due. At the same time, currency movements became particularly pronounced around the maturity of domestic dollar-indexed debt. The high local demand for dollars in the spot market was also manifested in the sharp increase and further inversion of the onshore dollar (*coupon*) curve (Figure 3.8).

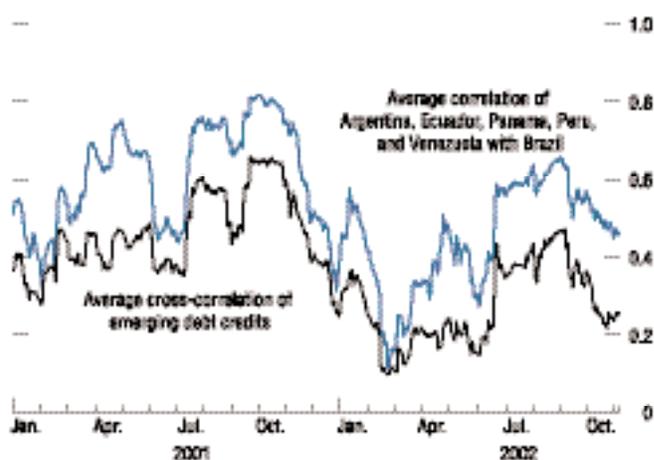
Sub-investment grade borrowers in the region—notably Colombia and Ecuador—experienced a marked widening of spreads in the third quarter, although not to the same extent as Brazil. Argentina was a notable exception, as its EMBI+ sub-index recorded the strongest returns of all EMBI+ components on growing expectations of renewed multilateral support (see Box 3.3).<sup>1</sup> Venezuela's spreads widened only modestly, in part reflecting the beneficial impact of higher oil prices, notwithstanding continued refinancing difficulties experienced by the government. Mexico managed to post a positive return for the quarter, reflecting its investment grade status, and ability to attract crossover investors from the U.S. corporate bond market.

In the case of non-Latin American sovereigns, both emerging Europe, the Middle East, and Africa (EMEA) and Asia benefited from rotation away from Latin America, steady demand from local investors, and improving credit quality, as reflected by credit rating upgrades for Korea, Malaysia, Qatar, and Russia during the quarter.<sup>2</sup> Spread compression in Asia was facilitated by abundant regional demand. The strong performance of investment grade credits, such as Malaysia (9.3 percent), Poland (4.2 percent), and South Africa (6.0 percent), spurred investors to venture down the credit spectrum, with single B sovereign credits such as Turkey (4.3 percent, and Ukraine 5.4 percent), posting positive returns during the quarter.

<sup>1</sup>Box 3.3 considers the market for distressed debt and highlights that investors in distressed emerging market debt have in some cases generated returns many times the comparable returns achieved in the market for distressed corporate debt in mature markets.

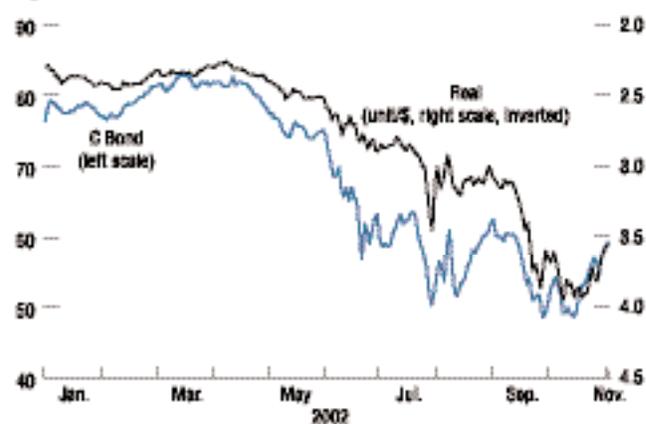
<sup>2</sup>As a result of credit upgrades to investment quality, Korea and Qatar were removed from the EMBI+.

**Figure 3.5. Average Correlation of Emerging Debt Markets (30-day rolling correlations)**



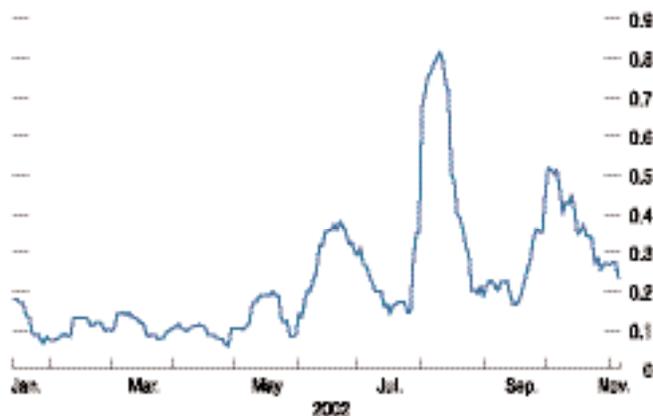
Sources: J.P. Morgan Chase; and IMF staff estimates.

**Figure 3.6. Brazil**



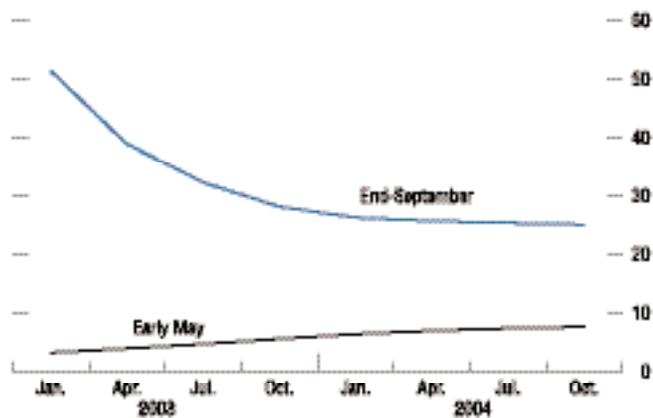
Source: Bloomberg L.P.

**Figure 3.7. Real/U.S. Dollar 10-Day Rolling Volatility**



Source: Bloomberg L.P.

**Figure 3.8. On-Shore Dollar Curve (in percent)**



Source: Bloomberg L.P.

### Investor Positioning

Dedicated investors<sup>3</sup> responded to concerns over Brazil by increasing their cash holdings, underweighting Latin American countries relative to the benchmark weight,<sup>4</sup> and overweighting positions in emerging Europe, especially Russia. In Brazil, dedicated investors face a bifurcated outcome, with very large bond price movements possible in either direction, depending on the direction of policies. As the performance of dedicated investment managers is measured relative to a benchmark index, they responded by avoiding large divergences from the benchmark, and, given the large weight of Brazil in emerging market bond benchmark indices, the gross exposure of dedicated investors to Brazil remained high. Dedicated investors apparently maintained broadly neutral benchmark exposure to Brazil ahead of the October presidential elections, given the chance of a sharp increase in bond prices in the event of positive developments.

Crossover investors, on the other hand, appear to have largely withdrawn from Latin America with the exception of Mexico, while increasing exposure in EMEA.<sup>5</sup>

<sup>3</sup>Dedicated emerging market bond investors are typically given a mandate to match or better the performance of an index that includes sovereign issues of about 40 emerging market countries. While the terms of each mandate differ, most managers are expected to limit the divergence of portfolio returns from those of the benchmark index. These portfolios are often termed “real money” accounts as they do not permit leverage or short selling. The focus on relative returns and inability to take levered positions limits the range of investment opportunities available to managers. The approach to asset management differs markedly from that of hedge funds and proprietary trading desks that typically have a total return objective subject to a value-at-risk limit.

<sup>4</sup>While the EMBI+ index is still estimated to be the preferred reference benchmark for dedicated investors than any other index, there has been a shift this year toward broader indices with a lower weight assigned to Latin American issuers, such as the EMBI Global Diversified and the EMBI Global.

<sup>5</sup>Crossover investors allocate assets across a range of different fixed income investments and include emerging market bonds in their portfolios when doing so appears likely to be advantageous.

### Box 3.2. Local Debt Structure and Vulnerability to Volatile Debt Dynamics

A number of governments—in both emerging and mature markets—have used indexed debt structures in an attempt, among other objectives, to facilitate issuance in local markets, reduce the cost of deficit financing, and expand the scope of instruments available to investors.<sup>1</sup> In some instances, the introduction of an instrument with a relatively assured real return and long duration was intended in part to provide a good match for the liability stream of large institutional investors, such as insurance companies and pension funds. A perceived ancillary benefit of indexed structures is their ability to signal commitment to policies.<sup>2</sup> For example, when indexed linked gilts were introduced in the United Kingdom in 1981, they were dubbed “sleeping policemen” that would help enforce a commitment to price stability, as a failure to contain inflation would result in a direct cost to the budget.

Many indexed bond structures shift risk—typically of currency depreciation or rising market interest rates—from lender to issuer. Whether this risk transfer ultimately reduces debt service costs to the issuer depends on the future path of the indexed variables, and on whether that path is reflected in the pricing differential between indexed and conventional bonds. As considered in greater detail below, indexation can in some cases have the unintended consequence of changing the structure of a country’s liabilities in a way that increases its vulnerability to external shocks.<sup>3</sup>

Indexed bonds should, in principle, be no less costly to service than their conventional

counterparts. However, indexed bonds may reduce funding costs when conventional bond yields do not fully reflect policies aimed at improving or stabilizing the indexed variables. If, for example, the expectations embedded in conventional bond yields reflect a history of instability in the indexed variables, policies that achieve an unanticipated break from the past would, in addition to any macroeconomic benefit, result in lower debt service costs for indexed versus conventional bonds. When the markets are perceived to be unjustifiably skeptical of commitments to announced policies, issuers may find indexed structures particularly attractive. Issuers may find indexed bonds expedient when uncertainty over the future direction of the indexed variables is particularly acute, and indexed bonds are the only practical means of raising funds.

While indexed bonds may contribute to lower funding costs if policies succeed against market expectations in stabilizing indexed values, the capital structure resulting from some forms of indexation can increase the issuer’s vulnerability to external shocks.

In those cases, the structure of liabilities adopted as a means of reducing funding costs amplifies external shocks, as debt servicing costs rise precisely when the capacity to meet those rising costs is falling. There are a number of potentially unstable debt structures that tend to reinforce, rather than mitigate, the impact of external shocks.<sup>4</sup>

- A debt structure indexed to foreign exchange is inversely correlated with the issuer’s capacity to meet debt service payments. In the event of a deterioration in global investor sentiment that results in a shock to the external capital account, the depreciation of the local currency needed to adjust will increase debt service costs. The process can become self-reinforcing, as an initial shock results in a higher debt service burden, which reinforces investor con-

<sup>1</sup>Governments that have issued indexed securities at various times include Argentina, Australia, Brazil, Canada, the Czech Republic, Finland, France, Hungary, Iceland, Israel, Mexico, New Zealand, Sweden, Turkey, the United Kingdom, and the United States.

<sup>2</sup>See Box 4.1 of the September 2002 *Global Financial Stability Report* for background information on indexed bonds.

<sup>3</sup>The importance of capital structure as a channel of volatility in emerging markets is considered in Pettis, 2001.

<sup>4</sup>Pettis (2001) considers a number of additional examples.

**Box. 3.2 (continued)**

cern and retrenchment. Depending on the magnitude of the external shock, it is conceivable that the depreciation required to achieve the needed adjustment in the balance of payments could be large enough to make the debt dynamics unsustainable. In that event, a debt structure adopted to reduce debt servicing costs would have the unintended consequence of seriously amplifying the impact of global financial market volatility.

- Similarly, a debt structure comprising largely short-term maturities (whether denominated in local or foreign currency) can also reinforce the impact of external shocks through the frequent rolling over of maturing bonds. In a climate of heightened risk aversion, the rising risk premium demanded by investors will be incurred as each maturing issue is rolled over, thereby increasing the debt service costs to the budget at the same time that financing conditions are likely to be undercutting the capacity to service debt.
- As in the case of a debt structure that relies on short-term instruments, floating rate instruments can also amplify the impact of shocks, as they too tend to become more costly to service in times of financial pressure and diminished payment capacity.

Designing a debt structure whose servicing costs increase with the capacity of the issuer to meet them (and vice versa) is an especially desirable goal for emerging markets, given their vulnerability to changes in global investor sentiment and liquidity conditions. Liabilities structured to increase the correlation between debt service costs and the capacity to meet them reduce the volatility of the residual difference between income and debt service costs, lessen the vulnerability of the issuer to adverse shocks, increase the range of policy response to economic developments, help bolster investor confidence in the issuer, and reduce funding costs by lowering the riskiness of the debt structure.

There are a few bond structures whose servicing cost are positively correlated with payment capacity.

- Among the indexed structures typically employed, indexation to inflation does not result in a liability structure whose servicing cost is inversely related to capacity to pay. In the case of an unanticipated increase in inflation, the nominal payments under an inflation-indexed bond will increase and will exceed the coupon payments on a conventional bond with a similar maturity. But the real payment stream under the inflation-indexed bond will remain roughly constant, and the ability of the issuer to meet the higher nominal payments will likely increase as revenues rise with the rate of inflation. In this way, inflation-indexed bonds do not pose an additional real cost on the issuer in the event of an unanticipated increase in inflation. However, inflation-indexed bonds reduce the effectiveness of the inflation tax as a means of resolving an unsustainable debt position. In the event of unanticipated inflation, the real cost of servicing a conventional bond will fall, while the real cost of an inflation-indexed bond will not.
- As explored in the September 2002 *Global Financial Stability Report*, the development of deep local bond markets can help shield borrowers from the impact of temporary market volatility by facilitating the issuance of medium- to long-term bonds denominated in local currency. In times of stress, the fixed coupon and extended maturity of such instruments can dampen the impact of external shocks. The inability to issue longer-term conventional bonds in local currency and/or the high ex ante real yields demanded on such securities have been the main factors underlying the recourse to indexed and potentially unstable debt structures.
- In the case of commodity exporters, linking bond coupon payments with commodity price movements would make debt service

**Box. 3.2 (concluded)**

costs positively correlated with payment capacity.

- Structured notes—which combine derivative securities with fixed income instruments—can be designed to link the payoff structure on the note with the payment capacity of the issuer.<sup>5</sup>
- GDP-indexed bonds have been proposed as a means of limiting the variability of a coun-

<sup>5</sup>The March 2002 *Global Financial Stability Report* provides background information on structured notes and collateralized bonds.

try's debt-to-GDP ratio.<sup>6</sup> By linking the bond payments to a broad measure of payment capacity, GDP-indexed bonds would also limit the need to pursue procyclical fiscal policies—for example, boosting the primary surplus in the midst of an economic downturn to make debt payments—and thus increase the range of policy response to economic cycles.

<sup>6</sup>The benefits and feasibility of GDP-indexed bonds are considered in Borensztein and Mauro (2002).

Leveraged money in the market remained low, especially compared with the Asian or Russian crises, with the withdrawal of a number of active highly leveraged “macro” hedge funds. However, the market witnessed an increasing tendency toward short positions, particularly in Brazil.

The positioning of investors appears to be mildly supportive. The lack of leverage is likely to limit contagion in the event of intensifying difficulties in Brazil, although the large share of Brazil in dedicated investor portfolios could result in a dramatic overhaul of the emerging bond market (see the section later in this chapter on the key risks to emerging market finance). The relatively large cash levels underscore the scope for net inflows, suggesting that a favorable outcome could trigger new investment.

## Primary Bond Market Developments

Access for emerging market issuers remained difficult during the quarter, and market access was skewed strongly toward investment grade issuers and smaller infrequent (“exotic”) issuers that were attractive because of local demand and because of their perceived ability to add diversification to external investor portfolios. Total issuance declined sharply to \$8.1 billion in the

third quarter from \$15.7 billion in the second quarter, and was some \$3.6 billion lower than the same quarter last year. Investment grade issuers accounted for about three-quarters of total bond issuance—compared with 50 percent in the second quarter—and corporate bond issues (including publicly owned corporations) accounted for about half of total issues. Given the prominence of investment grade issuers during the quarter, new bond issues had, on average, longer maturities and tighter spreads than those issued during the second quarter of 2002. On the sovereign side, issuance in the third quarter totaled \$3.5 billion, one of the lowest levels on record. Many individual issues were small in size and were mostly dominated by non-Latin credits (Bulgaria, Philippines), “exotic” sovereigns (Belize, Central Bank of Iran, and the Development Bank of Kazakhstan), and investment grade Latin American issuers (El Salvador and Mexico). A few Latin American sub-investment grade corporate issuers accessed international bond markets using credit enhancements (Embraer, Unibanco), although two Brazilian issuers (Bradesco and Vontarim) issued very short-term unsecured commercial paper at high yields.

The share of dollar-denominated issuance during the quarter reached a record high of 82 percent, bolstered by liability management trans-

### Box 3.3. Recovery Rates from Defaulted Debt

The recent sharp increase in the number of bond defaults and restructurings in both mature and emerging markets has led to increased investor interest in the potential returns that can be obtained from acquiring and trading these instruments. As in other markets, the realized returns on these investments will play an important role in determining future investor interest in this asset class.

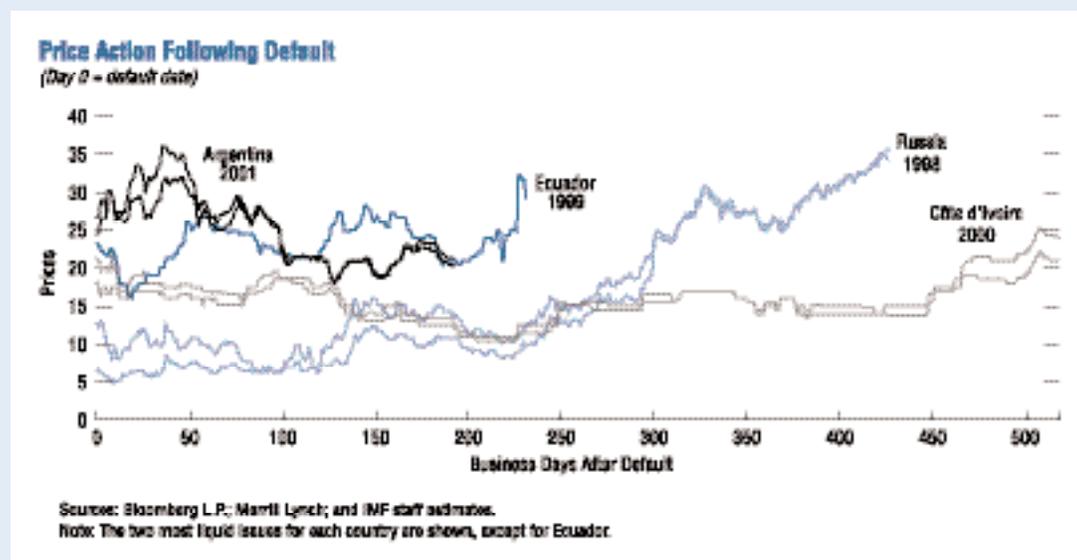
The return on defaulted debt can be high, especially in emerging markets, but the ultimate return on investments in distressed debt is also highly uncertain. A recent study finds that annualized returns from investing in defaulted corporate debt subject to U.S. bankruptcy procedures have averaged 22 percent in the last 20 years against annualized returns of 57 percent from sovereign bilateral restructurings in emerging market debt and up to 300 percent from international litigation involving emerging market debt (see Singh, forthcoming).

The investor base in distressed emerging market debt consists mainly of those that acquired the debt prior to default and usually recover via bilateral negotiations with the sovereign; and distressed debt investors, including vulture funds, which specialize in *illiquid* distressed sovereign debt and recover their investments

through litigation. Such investors provide a “floor” to the defaulted debt prices.

Sovereign bond restructurings, such as those involving Côte d’Ivoire, Ecuador, and Russia, provided holders of defaulted debt considerable post-default returns, in a relatively short period (see the Figure). Assuming a conservative two-year average window for bilateral debt workouts, investing in defaulted emerging market debt has on average generated annualized returns of 57 percent.

Investors in the illiquid debt market often buy paper with the intent of suing for full recovery. Litigation is a protracted process with many lawsuits taking 3 to 10 years to settle. Assuming average recovery over six years suggests that annualized median returns can be as high as 50 percent to 333 percent. A recent IMF paper on the status of the Heavily Indebted Poor Countries Initiative (IMF, 2002) suggests that in cases where information is reliably available, the judgment (*gross* award inclusive of principal, accrued interest, and legal costs) was nearly three times the original value of claims. In other words, accrued interest plus costs, if awarded, was twice the principal amount. Some of these claims were bought at roughly 10 percent of face value, implying very high gross recovery rates.



**Table 3.3. Equity Market Performance, 2002**  
(In percent, dollar indices)

	Q1	Q2	Q3	Year to Date <sup>1</sup>
Emerging Markets Free	10.7	-9.0	-16.8	-10.0
EMF Asia	14.9	-6.3	-17.0	-11.6
EMF Latin America	7.1	-22.0	-24.7	-13.4
EMF EMEA	5.1	-1.8	-10.5	-3.7
Dow	3.8	-11.2	-17.9	-7.3
S&P 500	-0.1	-13.7	-17.6	-8.2
Nasdaq	-5.4	-20.7	-19.9	-4.6
ACWI Free	0.5	-9.5	-18.6	-10.6
ACWI Free, excluding U.S.	1.1	-3.5	-19.7	-13.7

Sources: Bloomberg L.P., and Morgan Stanley Capital International.

<sup>1</sup>Through November 4, 2002.

actions. For example, Bulgaria reopened its dollar-denominated global 2015 bond for liability management purposes, issuing an additional \$759 million in exchange for Brady bonds. Sovereign dollar-issuance was boosted by the \$1.75 billion, 20-year issue from Mexico, which included a \$1.3 billion swap component for outstanding Brady bonds. Demand was strong from crossover investors, highlighting Mexico's strong appeal within this category of investors. Region-based tiering was also evident in unsecured issues without a liability management element. For instance, demand for the \$300 million dollar-denominated issue from the Philippines was very significant from local and regional investors, with an estimated 90 percent sold in Asia.

The euro and the yen sectors remain largely shut to nonregional and noninvestment grade credits. Most euro-denominated deals in the quarter were concentrated on a few selected exotic issuers, with the European retail investor, who has in the past formed an important element of the investor base for euro-denominated bonds, still reluctant to invest following the losses incurred in the wake of the default in Argentina.

Bonds issued with collective action clauses are estimated to amount to about 30 percent of the outstanding stock of bonds issued since 1994 (Box 3.4).

The near-term prospects for access by sub-investment grade borrowers in Latin America are likely to remain poor. While alternative structures—multilateral guarantees, insurance wrapping, and securitization—to enhance access have been used, the effectiveness of some of these structures has diminished sharply. In particular, the ratings assigned to bonds issued with certain multilateral guarantees were downgraded (Colombia '11) following the World Bank's decision to grant Argentina a five-year extension for its \$250 million payment due on October 15 this year. Market participants had apparently expected that, if the World Bank's rolling guarantee were called, the guarantee would be repaid to the Bank in time for it to roll to subsequent bond payments. The five-year repayment terms offered to Argentina by the Bank led to a reassessment of this expectation and to the subsequent downgrading of issues with a similar guarantee structure.

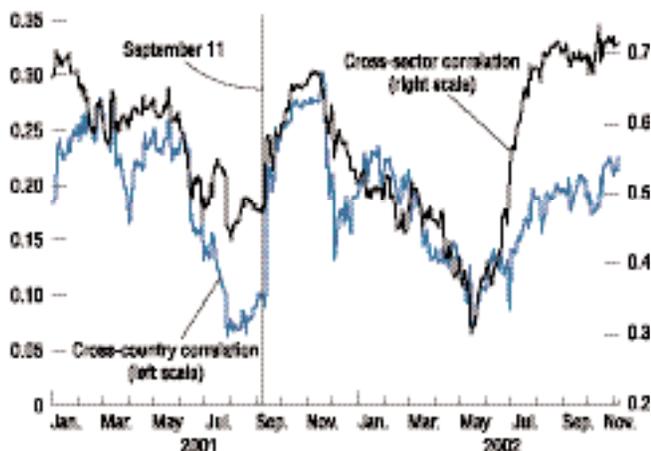
## Emerging Equity Markets

Emerging equity markets fell during the third quarter, following declines in mature markets (Table 3.3). Nevertheless, the relative performance of emerging market equities in the first nine months of the year remained better than that of their mature market counterparts. In addition to a generalized retrenchment of risky assets, emerging market equities were hurt by fears over slow global growth (which undermined the performance of large exporters), a surge in oil prices (which affected mainly Asian markets heavily dependent on oil imports), and investor concerns about regional developments (which continued to bedevil Latin American equities).

The variation of equity market performance by country was much wider than the relative performance of various sectors, suggesting that investors were discriminating more by country than by sector in their asset allocation decisions (Table 3.4). As a consequence, the cross-correlation of sector returns increased sharply, while

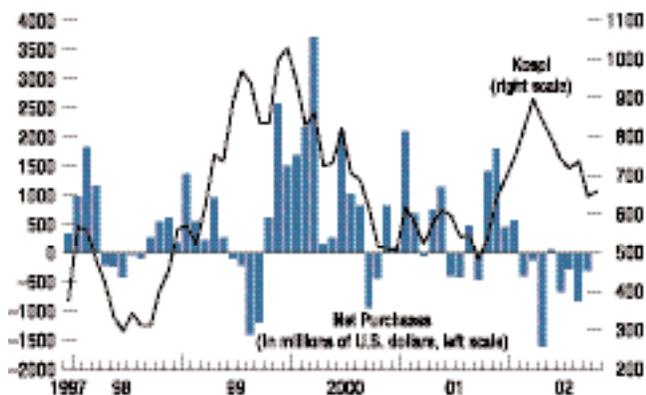
the cross-correlation of returns by country remained much lower (Figure 3.9).

**Figure 3.9. Average Correlations of the Returns on Emerging Equity Market Indices**



Source: Morgan Stanley Capital International; and IMF staff estimates.

**Figure 3.10. Net Foreign Equity Purchases and the KOSPI**



Source: CIBC.

### Net Foreign Flows and Market Positioning

Data from U.S.-based emerging market and global equity funds suggest continued retrenchment of risk, as reflected in net outflows and an increase in cash positions. While funds with a global emerging market mandate executed sales of \$500 million in the third quarter, funds with a regional mandate in Latin America and Asia also experienced significant outflows. Global equity mutual funds, which comprise both emerging and mature markets, have experienced three consecutive quarters of accelerating outflows, which reached \$2.3 billion in the third quarter.

Net foreign outflows from Asian equity markets accelerated in the third quarter from the second quarter. This was partly attributed to technical factors, with global institutional investors (including insurance companies, mutual funds, and pension funds) selling some of their profitable Asia positions to offset losses in U.S. equity investments and meet redemptions by retail investors.

In some emerging equity markets, foreign institutional investors own a high proportion of the outstanding shares, and represent an even higher proportion of trading volume, exposing these markets to changes in foreign investor sentiment. In Korea, where foreign ownership represents an estimated 35 percent of stock market capitalization—the highest in Asia—equity prices have tended to track foreign investor flows (Figure 3.10).

### Primary Market Issuance

Emerging market equity issuance continued to be hampered by global market conditions as well as by a slowdown of large-scale privatizations relative to earlier boom years. Issuance in the third quarter of 2002 totaled \$3.7 billion, representing a decline from issuance in the first and second quarters of 2002 (Figure 3.11). With the exception of a \$32.5 million South African issue

**Table 3.4. Sector and Country Performance**  
(In percent, dollar indices)

Sector	Weight (in Emerging Markets Free)	Q3 Performance
<b>Sector</b>		
Information technology	18.9	-19.4
Financials	17.8	-18.5
Materials	16.5	-12.8
Telecommunication services	12.1	-15.8
Energy	9.5	-12.1
Consumer discretionary	7.6	-18.6
Consumer staples	6.3	-13.5
Industrials	5.5	-16.1
Utilities	3.6	-18.7
Health care	2.2	-3.3
Total of index	100.0	
Standard deviation of returns		4.9
<b>Country</b>		
Korea	22.6	-16.2
Taiwan Province of China	14.4	-24.8
South Africa	13.9	-13.8
Mexico	7.8	-15.3
Brazil	7.2	-39.4
China	6.6	-14.5
Malaysia	5.4	-11.7
Russia	4.5	-7.7
India	4.1	-7.2
Israel	3.1	-4.8
Total of index	89.6	
Standard deviation of returns		10.1

Sources: Morgan Stanley Capital International; and IMF staff estimates.

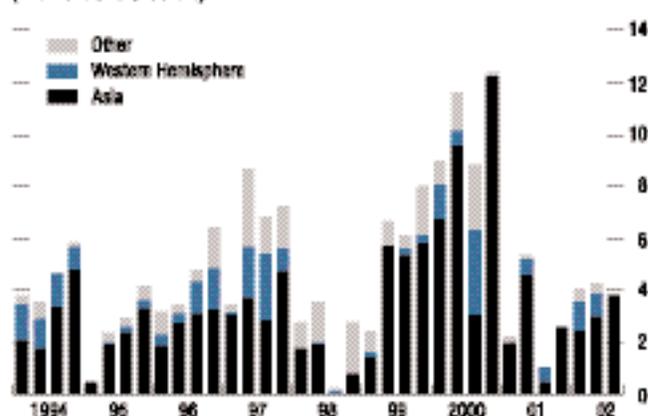
in the mining sector, all other initial public offerings (IPOs) were made by Asian companies—notably, Hong Kong SAR listed Chinese companies.

The IPO by the Bank of China Hong Kong totaled \$2.6 billion and represented the bulk of emerging markets issuance.<sup>6</sup> Local accounts were the main purchasers of new Asian equity, primarily attracted to high dividend yields in relation to money market or fixed income returns.

The participation of foreign institutional investors in the primary market has declined, in line with their withdrawal from secondary markets. As a result, the pipeline of issuance for the fourth quarter and for 2003 appears ambitious,

<sup>6</sup>IPOs in the order of 21.7 billion yuan (\$2.6 billion) were placed on the Shanghai A market in the third quarter, which is not open to foreign investors.

**Figure 3.11. Equity Placements**  
(In billions of U.S. dollars)

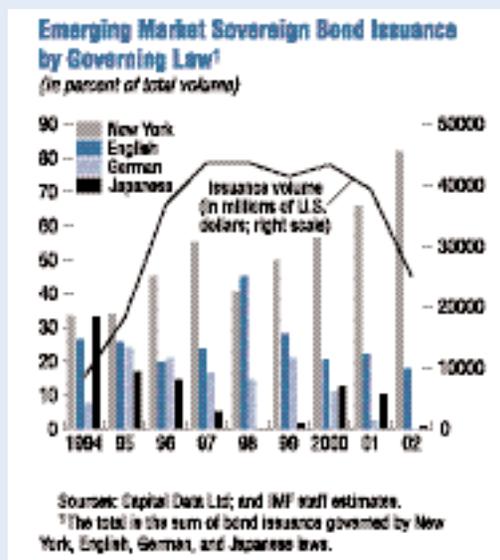


Source: Capital Data.

**Box 3.4. Collective Action Clauses**

Collective action clauses are typically included in bonds governed by English or Japanese law, while they are generally absent from those governed by German or New York law.<sup>1</sup> New York law does not prohibit the use of collective action clauses in sovereign issues, and there has been at least one quasi-sovereign issue under New York law with majority restructuring provisions; nevertheless, most bonds governed by New York law do not include collective action clauses largely because of market practice and perceived first-mover costs.<sup>2</sup>

Since 1994, emerging market sovereign bonds have been increasingly issued under New York law, both in terms of number and volume of issues, while issues governed by English law declined to around 20 percent from a level as



<sup>1</sup>Collective action clauses can be broadly classified into two categories: majority restructuring provisions, which enable a qualified majority of bondholders of a particular issue to bind all bondholders of the same issue to the financial terms of restructuring; and majority enforcement provisions, which enable a qualified majority of bondholders to limit the ability of others to recover their claims through litigation. For purposes of this analysis, we identify the presence of collective action clauses with the majority restructuring provision.

<sup>2</sup>The Electricity Generating Authority of Thailand in 1998 issued \$300 million fixed rate bond with the sovereign and the World Bank guarantee governed by New York law but included a majority restructuring provision.

high as 40 percent in 1998. In 2002, about 80 percent of bonds were issued under New York law. As of September 2002, sovereign bonds issued with collective action clauses amounted only to about 30 percent of the outstanding volume of issuance (see the first Table and Figure).<sup>3</sup>

However, little evidence suggests that investors actually eschew bonds issued with collective

<sup>3</sup>Stock outstanding as of September 2002. Non-dollar denominated bonds are converted into dollars at the current exchange rate. Bradys are not included.

**Emerging Markets Sovereign Bond Issuance by Jurisdiction<sup>1</sup>**

	2001				2002		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>With collective action clauses<sup>2</sup></b>							
Number of issuances	13	8	2	10	6	5	1
Volume of issuances	5.3	3.3	1.8	2.2	2.6	1.9	0.3
<b>Without collective action clauses<sup>3</sup></b>							
Number of issuances	15	19	6	19	17	10	5
Volume of issuances	6.6	10	3.8	6.3	11.6	5.6	3.3

Source: Capital Data.

<sup>1</sup>Number of issuance is in number. Volume of issuance is in billions of U.S. dollars.

<sup>2</sup>English and Japanese laws.

<sup>3</sup>German and New York laws.

**Box 3.4 (concluded)****EMSB Outstanding Issuance by Governing Law and Issuer***(Number of bonds outstanding)*

	New York	English	German	Japanese
<b>Emerging markets</b>	<b>253</b>	<b>146</b>	<b>84</b>	<b>52</b>
Asia	30	17	1	14
Europe	31	69	32	18
Latin America	160	49	50	17
Middle East/Africa	32	11	1	3

Source: Capital Data.

action clauses or that bonds issued under English law systematically carry a premium to those issued under New York law. Rather, the jurisdiction of issuance is typically determined by a variety of factors, including changes in the issuer and investor base, the desired currency denomination of the issue, and debt management considerations.

Changes in the investor base and issuers pool have tended to favor New York as an issuing jurisdiction. Institutional investors have gained more importance, especially U.S. institutional and crossover investors. At the same time, the retail investor base in Europe and Japan has declined. These changes led to a greater focus on the U.S. market and more issuance out of New York. The pool of issuers has changed as well, with Latin issuers becoming more prominent and Emerging European issuers declining in importance, most noticeably Russia. Typically, issuers targeting a global investor base increasingly tend to issue out of New York. The decline in new bonds governed by English law is par-

totaling up to \$28 billion, with companies in Hong Kong SAR and Taiwan Province of China accounting for the bulk of the planned IPOs. Nevertheless, major IPOs in defensive sectors, such as infrastructure and utilities, are expected to be well received.

**Valuations and Earnings Outlook**

On some valuation measures, emerging markets appear favorably valued against their mature

**EMSB Outstanding Issuance by Governing Law and Currency**

	New York	English	German	Japanese	Total
	(In percent)				
U.S. dollar	91	36	0	0	
Euro	7	53	49	0	
Deutsche mark	0	0	51	0	
Japanese yen	0	3	0	100	
Other	1	8	1	0	
	(In billions of U.S. dollars)				
Total	134	60	30	17	240
	(In number of issuance)				
Total	253	146	84	52	535

Sources: Capital Data; and IMF staff estimates.

tially explained also by the fact that Russia, which so far has issued only Eurobonds out of London, has not been in the market except for one exchange in 2000 (see the second Table).

The increased use of New York law also reflects a preference for U.S. dollar denominated bonds by issues (see the third Table).

The growing use of New York law could also be associated with the emergence of 144A bonds. Prior to the adoption of rule 144A, many issuers preferred eurobonds as a means of avoiding the cost of registering bonds with the U.S. Securities and Exchange Commission (SEC). After the SEC adopted the rule 144A, which exempts the issuers from the SEC registration requirement for resales of the bonds to qualified institutional investors, issues governed by New York law increased as a proportion of new issues.

market counterparts. On a price-to-earnings (P/E) basis, the 12-month forward P/E ratio for the S&P 500 is 16.3, compared with a near record low of 8.9 for the Emerging Markets Free index (Figure 3.12). Similarly, on a price-to-book (P/B) basis, emerging market equities, and in particular those in Asia, are also significantly cheaper than their U.S. counterparts.

Consensus forecasts of corporate earnings growth are also supportive of emerging equity markets. While the optimism earlier this year has

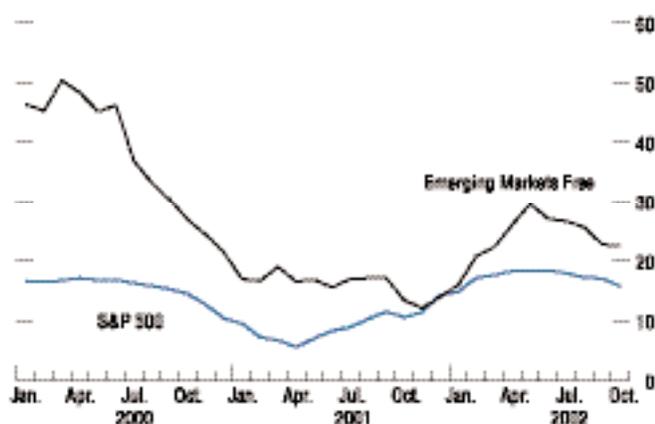
moderated, corporate earnings are still expected to grow at rates higher than those of the S&P 500 (Figure 3.13).

**Figure 3.12. Forward Looking Price-Earnings Ratio**



Source: I/B/E/S International.

**Figure 3.13. Twelve-Month Forward Earnings Growth, Emerging Markets Free and S&P 500**



Source: I/B/E/S International.

## Syndicated Lending

Downgraded expectations about a global economic recovery and ongoing concerns about credit quality continued to weigh on the loan market in the third quarter of 2002, with the major international banks further reducing exposures in the mature markets. Emerging markets, however, benefited at the margin, as the total volume of lending to emerging markets rose to \$16.8 billion in the third quarter (Figure 3.14) from \$11.2 billion in the second, but remained nonetheless subdued by historical standards. Refinancings continued to dominate deal flow, with new money raised in the loan market constrained by scarcity of demand for corporate funding, particularly in Asia. Looking forward, syndicated lending is expected to remain around current levels in the fourth quarter, but a rebound in activity is considered unlikely in the absence of a decisive turnaround in the global outlook.

A number of salient points about third-quarter loan market developments warrant highlighting:

- Despite its relatively subdued level, syndicated bank lending represented the largest component of fund-raising by emerging markets in the third quarter, as issuance in the bond market fell precipitously to levels not seen since 1995. The share of syndicated bank loans in total financing of emerging markets on international capital markets has in the past tended to peak around each of the emerging market crises (Figure 3.15).
- Creditors are seeking to shift exposure to higher-quality borrowers. Such a trend was clearly apparent in Latin America, where Argentine borrowers were shut out of the loan market and Brazilian borrowers faced very difficult conditions. In addition, banks continued to rotate their exposures from Latin America into Emerging Europe and the Middle East. However, with local banks

in Central and Eastern Europe flush with liquidity and aggressively concluding loans at wafer-thin margins in local currency, international lenders moved further afield to pick up yield, including to Kazakhstan, Romania, and Uzbekistan. In the Persian Gulf, oil and gas ventures received considerable funding.

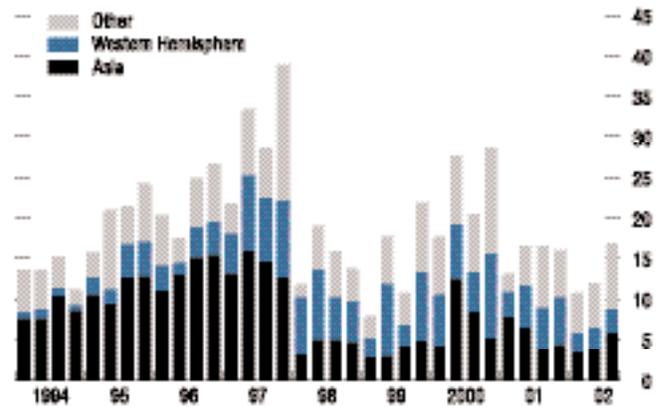
- Despite well-documented difficulties in the mature markets, competition for investment grade TMT mandates in emerging markets remained intense, with spreads in Central and Eastern Europe below their Western European counterparts (for example, France Telecom's Polish affiliate TPSA reportedly could raise financing at terms more favorable than those for France Telecom). In the third quarter of 2002, TMT-related lending remained buoyant in the emerging markets, boosted by the \$2.3 billion facility extended to Poland's Tele-Invest. Malaysian and Romanian telecom companies were also active in the loan markets.
- In recent years, secondary market trading volumes have picked up notably in Europe and Asia, but remain relatively small in comparison to the United States. Such a trend is expected to gather momentum amid structural changes in the loan market, including the size and composition of mandated arranger groups and the introduction of a mark-to-market framework for liquid loans in the context of Basle 2.

There was a dearth of corporate borrowing from the traditionally buoyant Asian markets of Hong Kong SAR, Korea, and Taiwan Province of China, and on risk-adjusted terms margin compression continued, reflecting ample bank liquidity. As noted, the same trend was prevalent in Central and Eastern Europe. In Latin America, the average loan-weighted spread also increased, despite lenders' move up the credit spectrum (Figure 3.16).

## Emerging Market Foreign Exchange

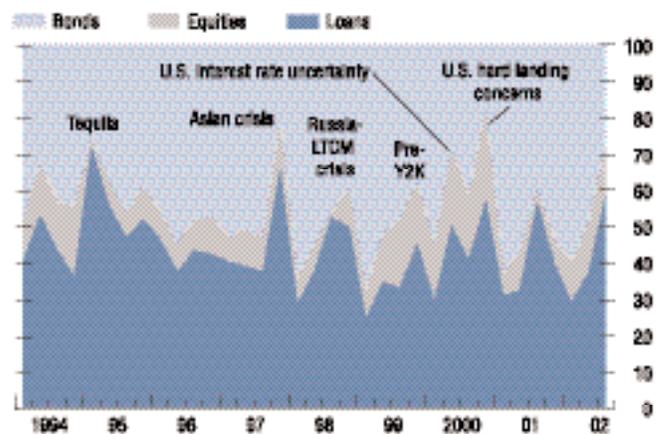
Developments in foreign exchange markets remained divergent across regions, in large part

**Figure 3.14. Syndicated Loan Commitments**  
(In billions of U.S. dollars)



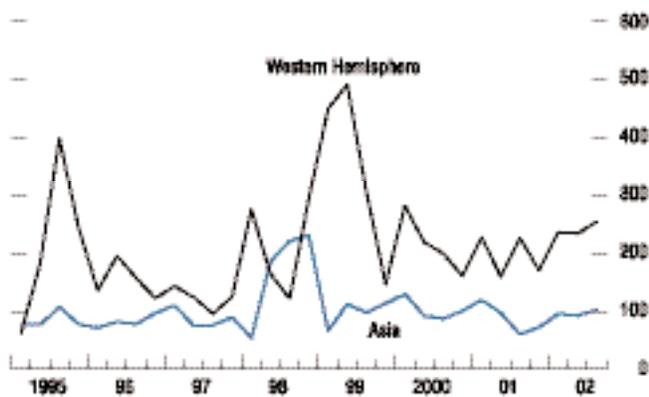
Source: Capital Data.

**Figure 3.15. Shares of Total Issuance**  
(In percent)



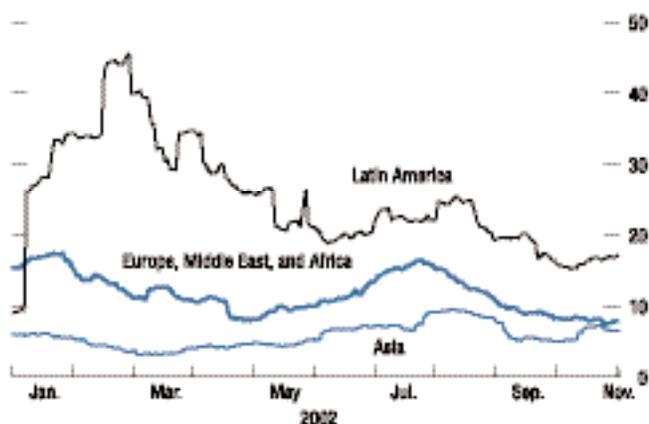
Source: Capital Data.

**Figure 3.16. Loan-Weighted Interest Margin**  
(In basis points)



Source: Capital Data.

**Figure 3.17. Emerging Market Currencies: Historical Volatilities<sup>1</sup>**  
(In percent, 30-day rolling window)



Sources: Bloomberg L.P. and IMF staff estimates.  
<sup>1</sup>Eighteen emerging market currencies versus U.S. dollar, unweighted.

reflecting global growth developments, equity market volatility, intensifying tiering of emerging markets, investor discrimination, as well as country specific circumstances.

Currencies in Latin America remained volatile, with most currencies continuing to fall against the dollar during the quarter (Figure 3.17), in part spurred by a retrenchment of capital from sub-investment grade credits and slowing U.S. growth. As noted in the emerging market bond section, the Brazilian *real* moved in tandem with bond prices, losing almost a quarter of its value against the dollar during the quarter.

The Argentine peso strengthened by about 2 percent against the dollar during the quarter but was still some 73 percent weaker than at the start of the year. The authorities tightened reserve requirements, limits on the net foreign exchange positions that banks can hold, and requirements on exporters to sell their foreign currency receipts. Central bank intervention also contributed to the currency's stability.

In Uruguay, the newly floating currency fell sharply as economic trouble in Argentina caused further deposit outflows. Runs on deposits in late July forced the authorities to close the banks for four days in early August. The augmentation of the IMF Stand-By Arrangement to the country following the bank closure initially did little to support the currency as capital flight continued. However, deposits started to reflow in September as confidence in the financial system improved, and the currency strengthened over 15 percent toward the end of that month. Nevertheless, the currency still ended the quarter down some 30 percent against the U.S. dollar, the sharpest decline in the region.

The Mexican peso continued to weaken moderately during the quarter, reaching a 44-month low in late September, before the central bank moved to tighten policy on September 23 by increasing the *corpo*. The peso reacted positively to the move, but still ended the quarter 2.6 percent lower versus the dollar.

On a trade-weighted basis, Latin American currencies, on balance, weakened further during

the third quarter. Even though the volatility of their bilateral exchange rates with the U.S. dollar remained high, their trade-weighted indices were generally less volatile than earlier in the year (Figure 3.18).

At quarter end, investors positioned in anticipation of further weakness among Latin American currencies, as most of the factors that have weighed on the region were expected to continue.

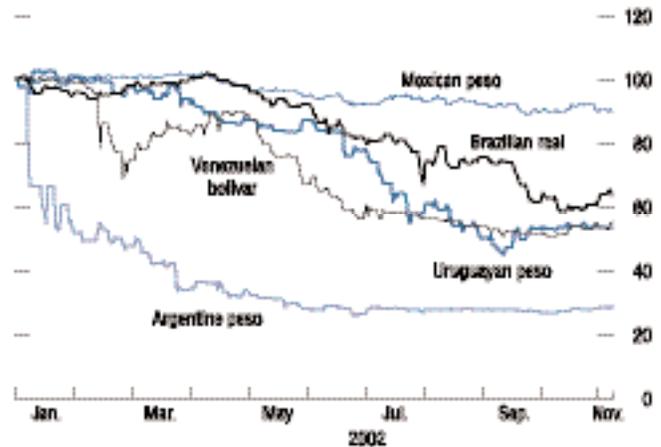
Eastern European currencies ended the quarter little changed, as they continued, for the most part, to track the euro. After a year-long rally that had seen its value rise up to 15 percent, the Czech koruna weakened modestly in the third quarter. In September, the government agreed to extend the arrangement by which privatization revenues are kept outside the foreign exchange market. The koruna ended the quarter 3 percent lower versus the euro. In Hungary, the central bank raised the deposit rate by another 50 basis points in early July and the forint stabilized to end the quarter little changed against the euro. In Poland, the zloty declined less than 2 percent against the euro as the central bank cut interest rates twice during the quarter, lowering the key rate by a cumulative 100 basis points to 7.5 percent.

The Turkish lira also won some much-needed stability during the third quarter. Having continued to weaken in July, good news on inflation allowed the central bank to trim its key interest rate by 200 basis points to 46 percent, and the lira rallied to end the quarter 4.2 percent weaker against the euro.

In South Africa, the rand initially gave up some of the gains it had made in the second quarter on fears that it might be hit by contagion from Latin America. However, it later gained as these worries were dispelled. The 100 basis points interest rate hike in September gave the currency another boost, leaving it down only 2.3 percent against the dollar and a little less against the euro.

Investor positioning at the end of the quarter was considered to favor the Central European convergence plays, with the zloty, in particular,

**Figure 3.18. Latin American Currencies Against the U.S. Dollar**  
(January 1, 2002 = 100)



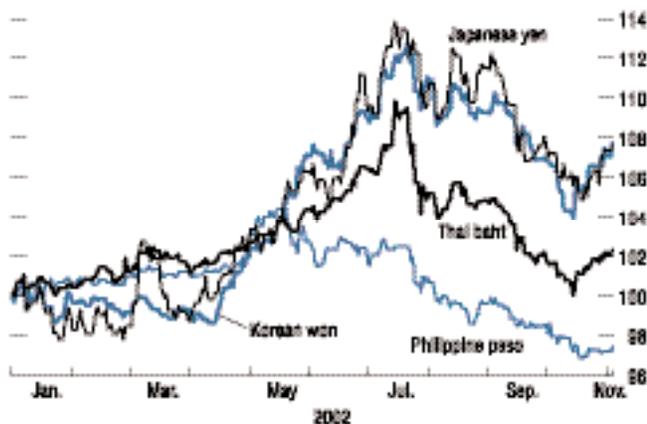
Source: Bloomberg L.P.

**Figure 3.19. Latin American Currencies: Trade-Weighted Indices and Volatility<sup>1</sup>**  
(In percent, 30-day rolling window)



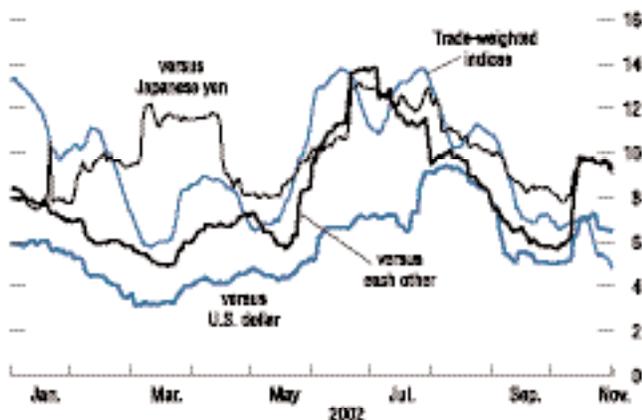
Sources: Bloomberg L.P.; and IMF staff estimates.  
<sup>1</sup>Argentine peso, Brazilian real, Chilean peso, Colombian peso, Mexican peso, and Venezuelan bolivar (unweighted).

**Figure 3.20. Asian Currencies Against the U.S. Dollar**  
(January 1, 2001 = 100)



Source: Bloomberg L.P.

**Figure 3.21. Volatility of Asian Currencies: Bilaterally and Trade-Weighted<sup>1</sup>**  
(in percent, 30-day rolling window)



Sources: Bloomberg L.P.; J.P. Morgan Chase; and IMF staff estimates.  
<sup>1</sup>Indonesian rupiah, Korean won, New Taiwan dollar, Philippine peso, Singapore dollar, and Thai baht (unweighted).

seen supported by improving fundamentals and as having priced in a considerable risk premium. The attractive overnight carry on Turkish lira positions continued to attract investors, as many consider that the currency has already discounted many negative factors.

Asian currencies were the least volatile of the three major regions even as the region’s floating currencies outpaced the yen’s weakness versus the dollar (Figures 3.19 and 3.20). Analysts noted that, unlike other Asian asset classes, currencies had moved swiftly to price in the prospect of a double-dip recession in the mature markets, with negative knock-on effects for Asian exports and equity markets. Some market participants noted an asymmetry between the authorities’ willingness to intervene in the market to dampen the appreciation of their local units and their reticence to intervene as their currencies depreciated.

As noted in the discussion of emerging equity markets, foreigners were increasingly net sellers of Asian equities in the third quarter—in many cases as they took profits to cover losses on other parts of their portfolios. Volatility versus the yen fell, but was still above that for the dollar. The volatility of Asian currencies’ trade-weighted indices fell during the quarter, as the cross-volatility of currencies in the region dropped by half during the quarter (Figure 3.21).

Investors at the end of the quarter were said to be positioned according to the expectation that Asian currencies will strengthen versus the U.S. dollar in coming months, particularly if the yen were to strengthen. However, they are being quite selective in their exposures—most of which are said to be expressed through options rather than in the spot market—with the Korean *won* and New Taiwan dollar preferred over the Philippine peso or Indonesian rupiah.

### Key Risks to Emerging Market Finance

Emerging markets faced a difficult external environment during the third quarter, as the

uncertain prospects for economic growth and earnings, concerns over excessive leverage and capacity, and the risk of war combined to sour investor and creditor sentiment. Investor disquiet was manifest in the mature markets in continued equity market weakness and volatility, a decline in government bond yields toward historic lows, and a marked widening in credit spreads. Banks appeared less willing to take on risk, as they sought to preserve capital in the wake of lower earnings, mounting loan losses, and legal liabilities. In addition, investor doubts over policy continuity in Brazil and other emerging markets intensified with the approach of elections, compounding the effects of a harsh external environment.

Contagion in the emerging bond market remained subdued, reflecting limited leverage and continued discrimination by portfolio investors. Nevertheless, the attendant tiering by credit quality exacerbated the reduction of flows to emerging markets, in particular to sub-investment grade issuers in Latin America. This retrenchment is manifest in both lending and brokerage activities. The retrenchment of capital to brokerage activities in emerging markets, and Latin America in particular, has reportedly limited trading in emerging market bonds. In addition, rollover problems encountered by Brazil's corporate and financial sectors are symptomatic of an increasing trend by creditors and investors to cut exposures across the region, and appear to have affected other markets.

Looking forward, a prolonged period of sluggish global growth, continued corporate earnings disappointments, prolonged mature equity market weakness and volatility, further aggressive tiering by credit quality, continued retrenchment by banks, and the potential for a spike in oil prices represent the key external risks to emerging markets.

Within emerging markets, developments in Brazil are especially important, given the size of its economy, its importance in emerging credit markets, and the correspondingly high exposure of emerging market bond investors to Brazilian paper. A deterioration in market sentiment

toward Brazil would have repercussions for the region and could alter the structure of the emerging credit market.

Investments in emerging market debt could become subsumed within global fixed income portfolios as a tactical or opportunistic allocation, rather than a separate asset class that forms a strategic allocation in institutional investor portfolios. If flows to the asset class were to become more tactical, the resources devoted by the sell-side to support the marketing of emerging market debt could be curtailed.

Less brokerage support, less liquidity, and less dedicated investment could lead to a restructuring of the primary and secondary emerging bond market into three tiers: The first tier of investment grade credits—including Chile, Mexico, Korea, and Poland—would continue to find relatively open access and a stable secondary market investor base. The second tier of countries would rely on a favorable local or regional liquidity dynamic and include issuers in Asia, EMEA, and smaller “exotic” issuers. The third tier would comprise sub-investment grade Latin American issuers, which would likely experience difficult access conditions without guarantees or securitization and a structural increase in secondary market volatility without the support provided by a dedicated investor base.

A structural diversification away from sub-investment grade issuers in Latin America already appears to be under way, underscoring the risk of a long-lasting reorientation of capital flows. Given Brazil's high weight (17 percent) in the widely used EMBI+, some fund managers have begun to move toward broader-based indices, such as the EMBI Global and the EMBI Global Diversified, with a view to diversifying their exposure away from Latin America. In addition, some fund managers are shifting away from benchmarking toward total return mandates.

A retrenchment of bank lending from emerging markets poses another risk, as banks intensify their efforts to protect their capital, against the backdrop of difficult earnings prospects,

**Box 3.5. Emerging Market Bond Developments Since the End of September<sup>1</sup>**

Global investor sentiment appears to have improved since early October—U.S. and European equities have risen, corporate credit spreads have narrowed, risk appetite has increased, and implied equity market volatility has moderated from recent highs—providing a more supportive environment for emerging markets.

This improvement in sentiment, a search for yield, and confidence-building measures of new administrations in key emerging markets have helped underpin an emerging market bond rally. Since the end of September through November 22, the benchmark EMBI+ returned 11.3 percent and bond spreads tightened by 258 basis points to 783 basis points (see the Table).

<sup>1</sup>This box provides an update of selected market developments through November 22, 2002

Sub-investment grade credits outperformed investment grade credits, further evidencing increased risk appetite. The Latin sub-index of the benchmark EMBI+ index returned 14.1 percent, fueled by a 30.1 percent return of Brazil, whose sub-index spread tightened 821 basis points to 1,574 basis points.

Sentiment toward Brazil has been buoyed by pronouncements by the incoming government, underscoring its commitment to curbing inflation and maintaining a prudent fiscal stance. Attendant improvements in domestic sentiment were supported by higher-than-expected rollover ratios of domestic securities, albeit at stubbornly high interest rates.

Notwithstanding improvements in secondary market performance, primary market conditions remained difficult for sub-investment grade issuers. Bond issuance remained low and focused in Asia, emerging Europe, the Middle East and Africa, and selected “exotic” borrowers.

**EMBI+ Performance, 2002<sup>1</sup>**

	Returns (percent)		Spread Changes (basis points)		Spread Levels (basis points)	
	Q1–Q3	Q4 to Nov. 22	Q1–Q3	Q4 to Nov. 22	Sep. 30, 2002	Nov. 22, 2002
EMBI+	-0.3	11.3	310	-258	1,041	783
Latin	-9.6	14.1	566	-349	1,399	1,050
Non-Latin	14.9	7.6	34	-155	601	446
Argentina	-10.4	4.7	2,181	-119	6,553	6,434
Brazil	-31.1	30.1	1,532	-821	2,395	1,574
Bulgaria	3.6	5.7	-43	-106	390	284
Colombia	-10.3	19.4	570	-401	1,084	683
Ecuador	-17.6	18.8	742	-298	1,975	1,677
Egypt	n.a.	7.4	n.a.	-165	561	396
Malaysia	n.a.	-1.9	n.a.	-12	170	158
Mexico	7.6	4.8	128	-117	436	319
Morocco	2.0	1.8	27	-50	545	495
Nigeria	-6.9	13.5	2,506	-1,654	3,932	2,278
Panama	1.5	8.2	145	-137	554	417
Peru	-7.4	16.5	359	-275	880	605
Philippines	12.3	0.6	65	-43	531	488
Poland	9.1	2.6	108	-112	303	191
Russia	21.9	10.1	-54	-173	615	442
South Africa	n.a.	2.4	n.a.	-92	304	212
Turkey	0.8	17.1	317	-353	1,024	671
Ukraine	18.9	-2.2	-276	132	664	796
Venezuela	14.2	7.6	32	-205	1,162	957

Source: J.P. Morgan Chase.

<sup>1</sup>Constituents as of September 30, 2002.

losses on lending in mature markets, reputational losses from questionable business practices, potentially large legal liabilities, and falling share prices.

A reduction in foreign direct investment (FDI) flows, which has in the past been a mainstay of emerging market finance, is another potential risk. Investors, and especially banks, are reassessing the risks of unanticipated regulatory changes in the wake of the recent experience in Argentina. In addition, prolonged weak mature equity markets, and the trend by corporations to seek profitability through downsizing, could diminish FDI flows. The concentration of foreign direct investment in a relatively small number of countries could intensify further.

\* \* \*

An update on emerging bond market developments is provided in Box 3.5.

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